

Parental Awareness on Teenage Smoking Behavior in Yogyakarta and Bali

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ABSTRACT

Smoking or being healthy is not a suitable offers to young teenagers (ages 13-15 years), because they have not able to take responsibility for the negative impacts of their choices on smoking behaviors. In addition, they have not been well informed about cigarettes and their dangers. The data indicate that there was a high rate of smoking behavior for adolescents aged 13-15 years (55.71%), including trial smoking behavior. However, only 39% of parents are aware of their children smoking behavior. This study aims were determining the awareness of parents and its form on the smoking behavior of their teenage children after treatment.

The design of this study was a pre-posttest experiment with control group design. Around 301 parents of 8th grade boy student from 7 junior high schools were considered respondents. The latter came from 2 locations namely Yogyakarta and Tabanan Bali. For determining the respondents, cluster random sampling was used. The respondents were grouped into 3 groups (X_1 treatment group, X_2 treatment group and control group). The treatment is to provide information about cigarettes and its danger. It was given once by health workers. The measured variable is the respondent awareness and its form that was obtained from the students using self-reported questionnaire. Data were analyzed using Kruskal Wallis and Chi-square test with 0.05 level of significant.

The results showed that there was a significant increase the parental awareness after treatment (p value 0.0001). This can happen because the intervention strengthened the predisposing factor to realize the respondents' caring behavior as well as the concept of behavioral determinant of LW Green. In the X_2 treatment group (non-smoker respondents) showed a higher increase of parental awareness than X_1 treatment group (smoker respondents) and control group. This happens because they get support from health workers and get healthy conditions as resulted from their behavior. They will continue to remain as nonsmokers and encourage their teenage children to look up to them in order to get a similar reward, as the law of effect theory by E.L Thorndike made it clear. The form of awareness that many parents chose is the message upholding the primary prevention. The conclusion of the research stresses on continuously fetching more knowledge about cigarettes and its dangers, as one of the best mechanisms that can increase the parental awareness against teenage smoking behavior.

Keywords: awareness, parent, smoking, teenagers

I. BACKGROUND

Smoking or being healthy is a decision that must be chosen by individuals who already have enough information about cigarettes and the dangers and been able to responsible for the risk of their choice. The offer is not appropriate for teenage (ages 13-15 years), because they have not fully received sufficient information about smoking and its dangerous. They still need parental involvement to get cigarettes. According to Bennet & Murphy (1997) in Astuti (2012), adolescent smokers in general will also potentially be predictors of a number of other social problems namely unhealthy sex behavior, school dropout and juvenile delinquency [1]. Especially for poor families, teenage smoking behavior caused diversion needs for fulfill food, education and health for families. The earlier teenage know cigarettes, the longer the burden of the family as the consequences of teenage smoking behavior. They will "share" consciously or unconsciously negative impact on the environment and their family [1].

Data showed that there was an increasing percentage of teenage smoker from year to year. In 2012 there were 50% teenage smokers including trial smokers of students grade 7-9 of junior high school (between 13 to 15 years) in Bantul regency, Yogyakarta special area in Indonesia [1], in 2015 there were 29.3% teenage smokers of 7th grade students of junior high school (between 13-14 years) in Jayapura city in Indonesia [2], in 2016, there was 55.71% of male teenage smokers (before intervention) of 8th grade students of junior high school (between 14-15 years) in three cities in Indonesia namely Yogyakarta, Tabanan Bali and Banjarmasin [3]; although most of the schools in Indonesia have implemented a "smokeless school" policy. The national average number of cigarettes smoked per day (for population more than 10 years) was 12.3 cigarettes [4]. According to Shiffman in Zhu, Sun, Hawkins, Pierce, & Cummings (2003), this number was not low [5]. However, only 39 % of parents have known their teens' smoking behaviors [6].

According to Barner (1990) in Binder (2010), the magnitude of the percentage of teenage smoking behavior related to life in his family [7]. The link between family life and teenage smoking behavior, Shamsudin (2000) and

Gwon (2016) confirmed that parental smoking behavior was one of the factors that significantly influence teenage smoking behavior [8] [9]. Without ignoring the efforts of previous researchers to intervene teenage smoking behavior among others through peer and mentor [10] [11] [12], researchers want to complement these efforts by empowering parents namely the father both smokers and non-smokers.

The consideration choosing parent (father) for intervention was they must be responsible for the teenage behavior. Besides, father as role model of their child behavior as the Bandura's social learning theory expressed by Andrew (1993) in Binder (2010) [7]. Their father together with peers, mentors and their teachers were reinforcing factor as the concept of determinant behavior by LW Green [13] [14]. On the other hand, teenagers also recognize the authority of their parents to remind them, especially in the case of smoking and drinking alcohol [15].

Because of the high number of unknowing parent to their teenage behavior have linked to lack of communication between teenagers and their parents [16], so this study want to add information about cigarettes and its dangers to their parents. Moreover, their parent will be motivated to aware on teenage smoking behavior.

II. METHOD

This research was an experimental research, pretest-posttest with control group design, using 3 research groups, consisted of 2 treatment groups and 1 control group. The respondents were 301 parents of the 8th grade boys of 7 junior high schools. The parent of the boy students were chosen as respondent with consideration that smoking behavior done by mostly male student. Astuti (2012) did not find the smoking female student of the 8th grade of junior high school in Bantul Regency ⁽¹⁾. The seven junior high schools were chosen by cluster random sampling from a number of government junior high schools in Yogyakarta and Tabanan Bali. The selection of the two locations (Yogyakarta and Tabanan Bali), were based on the proportion of the lowest national number of smokers by province in Indonesia in 2013⁽⁴⁾, with assuming that these provinces lack of the national program priority.

The independent variable (kind of treatment) was giving information about cigarette and its danger to respondent both smokers and nonsmoker parents. The information was given once in a day by the health worker. There were 104 smoker parents called X₁ treatment group and there were 98 nonsmoker parents called X₂ treatment group. There were 99 parents that did not receive

treatment, called control group. The dependent variables were parental awareness on teenage smoking behavior and its forms. Respondent's awareness is the activity of communication between respondents and their teenage related to smoking behavior. Two months later, parental awareness and its form were measured on students using self-reported questionnaire. If there was communication between parent and their children, although just once in 2 months, it would be noted as respondent aware. If the student gave information that there was no communication between respondent and their child related to smoking behavior, it would be noted as respondent un-aware. The parental awareness forms were grouped into 3 prevention message forms, namely primary, secondary, and tertiary prevention message forms [17]. The primary prevention message form consisted of 3 options e. i explaining about cigarettes and its dangers, avoiding friends who are smoker, and recommending for not to smoke. The secondary prevention message form consisted of 2 options e. i reminding to reduce the number of cigarettes smoked per day and reminding to stop smoking. The tertiary prevention message form consisted of 2 options e. i hearing children's problems and solving children's problems.

Data were analyzed using Kruskal Wallis and Chi-square tests with 0.05 level of significance. This research got recommendation from the Ethics Committee of Faculty of Medicine and Health University of Muhammadiyah Yogyakarta in 2016.

III. RESULT

A. Characteristics of Respondent

In average, the respondents were 46 years old (the youngest was 46 years old and the oldest was 65 years old). Most of the type of work parent was entrepreneurs and laborers. There was no different type of work parent between respondent in one group and another (p value 0.796 or more than 0.05). More can be seen in Table 1.

B. Respondent' Awareness

The data showed that there were an increased number of respondents who aware to children smoking behavior after the treatment in the X₁ and X₂ treatment groups, whereas in the control group actually decreased. The highest percentage rate of increasing occurred in the respondents of the X₂ treatment group e. i non-smokers respondents. Kruskal Wallis test showed that there were a significant difference in percentage rate of respondent awareness between one group and another (p value 0.0001 or less than 0.05). More can be seen in Table 2.

TABLE 1. CHARACTERISTICS OF WORK RESPONDENT

Type of work	Experiment groups		Control group n=99 (%)	Total n=301 (%)	P value ^a
	X1 n=104 (%)	X2 n=98 (%)			
Civil servants	6.7	18.4	13.1	12.6	0.796 ^b
Armed forces	0	0	4.0	1.3	
Private employees	30.8	22.4	20.2	24.6	
Entrepreneurs	32.7	27.6	29.3	29.9	
Retired	0	0	4.0	1.3	
Laborer, etc	29.8	31.6	29.3	30.2	

^a Kruskal Wallis test, ^b level of significant 0,05

TABLE 2. PERCENTAGE OF RESPONDENT AWARENESS BEFORE AND AFTER TREATMENT

Group	% rate of responden awareness related to teenage smoking behavior				Gain (%)	P value ^a
	Before treatment		After treatment			
	Aware	Un-aware	aware	Un-aware		
X ₁ n=104	61.5	38.5	78.8	21.2	17.3	0.0001 ^b
X2 n=98	76.5	23.5	85.7	14.3	9.18	
Kontrol n=99	80.8	19.2	68.7	31.1	-12.12	

^a Kruskal Wallis test, ^b level of significant 0.05

C. Relationship Between Type of Work and Parental Awareness

There were 6 types of respondent's work. We assumed that there were relationship between type of work and parental awareness related to teenage smoking behavior. However, there were no significant relationship between different types of work and parental awareness both before and after treatment (p value 0.605 and p value 0.993 or > 0.05). More can be seen in Table 3.

TABLE 3. RELATIONSHIP BETWEEN TYPE OF WORK AND PARENTAL AWARENESS

Type of work	Before treatment			After treatment		
	Aware	Un-aware	Σ	Aware	Un-aware	Σ
A	28	10	38	32	6	38
B	3	1	4	3	1	4
C	58	16	74	58	16	74
D	63	27	90	69	21	90
E	4	0	4	3	1	4
F	63	28	91	69	22	91
Σ	219	82	301	234	67	301
P Value ^a	0,605 ^b			0,993 ^b		

^a Chi-Square test, ^b Level of significant 0,05

A=Civil Servant, B = Armed Forces, C= Private Employees, D= Entrepreneur, E= Retired, F=Laborer, etc

D. Form of Parental Awareness

Parental awareness related to teenage smoking behaviors was grouped into 3 prevention forms. Primary prevention form, preferably for non-smoker teenagers, secondary prevention form, preferable for smoker teenagers, and tertiary prevention form, preferable for smoker teenagers who need a companion.

The description of respondents' concern on their adolescent smoking behavior indicated that respondents of X₂ treatment group (non-smokers) had higher percentage number than others in all prevention forms.

Overall, respondent in all group tended to choose primary prevention form especially giving information about cigarette and its danger compared with secondary and tertiary prevention forms. In the primary prevention form, respondent in all groups tended to choose "suggest not to smoke" compared with the others. In the secondary prevention form, respondent nonsmoker (X₂ treatment group) and control group tended to choose "advocate quitting smoking" compared with the other one. The smoker respondent (X₁ treatment group) tended to choose "advocate to reduce number of

cigarette” compared with the others. In tertiary prevention form, respondent in all group tended to choose “hear teenage problem” compare with the other one. More can be seen in Table 4.

TABLE 4. PARENTAL AWARENESS FORM RELATED TO TEENAGE SMOKING BEHAVIOR

Awareness Form	Smoker parent (X ₁) n=104		Un-smoker parent (X ₂) n=98		Control		Average
	f	%	F	%	f	%	%
Primary Prevention Form							
A	66	57.7	83	84.7	63	63.6	68.66
B	35	23.7	59	60.2	42	42.4	42.1
C	65	62.5	76	77.6	70	70.7	70.26
Secondary Prevention Form							
D	16	15.4	24	24.5	10	10.1	16.66
E	15	14.4	26	26.5	24	24.2	21.7
Tertiary Prevention Form							
F	14	13,5	12	12,2	12	12,1	12,6
G	11	10,6	9	9,2	5	5,1	8,3

A= information related to cigarette and its dangers, B= avoid friend who smoker

C= not to smoke, D= reducing cigarettes smoked per day, E= quit smoking, F= Hearing teenage problem, G= Solving teenage problem

IV. DISCUSSION

The addition of information about the content of cigarettes and its danger to parents affected on parental awareness related to teenage smoking behavior. According to concept of behavioral determinant stated by LW Green, that one determinant of one's behavior is predisposing factor including knowledge [13]. Intervention in this study will strengthen the predisposing factor in parents. It will gradually cause parental awareness related to teenage smoking behavior.

Although respondents in all groups tend to choose primary prevention forms, especially explaining about cigarettes and the danger, but the highest percentage is in non-smoker respondents. This can be explained by The Law of Effect theory of E.L Thorndike in Mazur, J.E. (2013),

"reinforcing and punishing are used differently in psychology than they are colloquially. Something that reinforces a behavior makes it more likely that that behavior will occur again, and something that punishes a

behavior makes it less likely that behavior will occur again “

It means that behaviors that produce pleasant rewards will be repeated, whereas if behavior brings punishment then the behavior will not be repeated again ⁽¹⁸⁾. The nonsmoker parents feel that what they have done is the right way. They have succeed to refuse cigarettes and got a good health. They will continue their behavior (not to smoke) and they want their child imitated them in order to have a good health. So, that's way the percentage number of increasing parental awareness higher than the other groups.

In this study showed no relationship between the different types of work with the concern of parents to teenage smoking behavior. It means that any type of work has the same concern. This can be explained because any type of work has limited time to make communication with their teenage children.

The most commonly form of parental awareness chosen by respondent is primary prevention form, especially “giving information about cigarette and the danger. This is because the material refreshing is about the content of cigarettes and the danger. The newly material is still remembered and delivered to the teenager.

The second prevention form chosen by respondent is secondary prevention form especially advice to quit smoking. So, weather primary prevention form and secondary prevention form are “cigarette and the danger” theme. According to Jackson (2002) in his research produced information that adolescents recognize the authority of parents to remind their behavior related to cigarette and alcohol issues. These issues are more acceptable than conventional issues (about learning and worship) and contemporary issues (about choosing friends, music, and dressed)[2].

V. CONCLUSION AND RECOMMENDATION

Adding information to parent about cigarettes and the dangers can significantly increasing the parental awareness related to teenage smoking behavior. In addition, there was no relationship between type of parent work and parental awareness. The form of parental awareness that prefer to choose was primary prevention form especially “explaining about cigarettes and the dangers”. The result of this research can applied to parent especially parent of the 8th grade boy students of primary high school in Yogyakarta and Bali, in order to control the percentage number of teenage smokers.

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